Application No.: 10/593,625 Docket No.: 0649-1366PUS1

AMENDED CLAIM SET:

1. (currently amended) An image forming method comprising

subjecting a planographic printing plate precursor to exposure using laser light in a wavelength range of 250 nm to 420 nm with a one-pixel drawing time of one millisecond or less, wherein the planographic printing plate precursor comprises:

on a support, an undercoat layer that consists essentially of a eompound-having-a polymerizable group, a group-of the formula—OPO₂H₂, and a group-of the formula—(OCH₂CH₂)_n—wherein n is 1 to 50 polymer having repeating units of the formula (A1) and the formula (A2)

$$\begin{array}{cccc}
R_1 & R_2 \\
-C & -C & -C \\
R_3 & L & R_6 \\
R_4 & R_5
\end{array}$$
(A 1)

wherein R_1 to R_3 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, or a halogen atom, R_4 to R_6 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, a halogen atom, an acyl group, or an acyloxy group, and R_4 and R_5 , or R_5 and R_6 may form a ring, L represents a divalent linking group selected from the

Application No.: 10/593,625 Docket No.: 0649-1366PUS1

group consisting of -CO-, -O-, -NH-, a divalent aliphatic group, a divalent aromatic group, and a combination thereof, and Q represents a functional group which interacts with a surface of the support, the coating amount of the undercoat layer after drying being from 1 to 30 mg/m²; and

on the undercoat layer, an image recording layer that contains (A) a polymerization initiator, (B) a polymerizable compound, and (C) a binder polymer, and has photosensitivity in the wavelength range of 250 nm to 420 nm.

(previously presented) The image forming method of claim 1, wherein the laser light wavelength is a wavelength selected from 405 nm, 375 nm, 365 nm, 355 nm, and 266 nm.

3. (previously presented) The image forming method of claim 1, wherein exposure is performed using an optical system comprising: a DMD or GLV modulation element; and a 405 nm or 375 nm-wavelength semiconductor laser.

4. (previously presented) The image forming method of claim 1, wherein the laser light wavelength is a wavelength selected from 365 nm, 355 nm, and 266 nm, and exposure is performed using an internal drum method.

- 5. (cancelled).
- 6. (cancelled).
- 7. (cancelled).
- 8. (cancelled).
- 9. 11. (cancelled).

12. (currently amended) A planographic printing method comprising:

forming an image by subjecting a planographic printing plate precursor to exposure using laser light in a wavelength range of 250 nm to 420 nm with a one-pixel drawing time of one millisecond or less, wherein the planographic printing plate precursor comprises: on a support, an undercoat layer that consists essentially of a compound having a polymerizable group, a group of the formula —OPO₃H₂, and a group of the formula —(OCH₂CH₂)_n—wherein n is 1 to 50 polymer having repeating units of the formula (A1) and the formula (A2)

$$\begin{array}{c|cccc}
R_1 & R_2 & & & & \\
\hline
-C & -C & & & & \\
R_3 & L & & & \\
R_4 & & & & & \\
R_5 & & & & & \\
\hline
R_1 & R_2 & & & & \\
-C & -C & & & & \\
R_3 & L & & & \\
Q & & & & & \\
Q & & & & & \\
\end{array} (A 1)$$

wherein R_1 to R_3 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, or a halogen atom, R_4 to R_6 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, a halogen atom, an acyl group, or an acyloxy group, and R_4 and R_5 , or R_5 and R_6 may form a ring, L represents a divalent linking group selected from the group consisting of -CO-, -O-, -NH-, a divalent aliphatic group, a divalent aromatic group, and a combination thereof, and Q represents a functional group which interacts with a surface of the support, the coating amount of the undercoat layer after drying being from 1 to 30 mg/ m^2 ; and on

the undercoat layer, an image recording layer that contains (A) a polymerization initiator, (B) a polymerizable compound, and (C) a binder polymer, and has photosensitivity in the wavelength range of 250 nm to 420 nm;

developing said image using a developer solution or development-on-machine performed with supply of printing ink and/or fountain solution; and

then printing.

13. (cancelled).

- 14. (currently amended) the planographic printing method of claim 12 [[13]], wherein the light source is a laser.
- 15. (new) The image forming method of claim 1, wherein the polymer of the undercoat layer has repeating units of the formula (A1) and the formula (A2) and the formula (A3)

wherein R_1 to R_3 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, or a halogen atom, R_4 to R_6 each independently represent a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, a halogen atom, an acyl group, or an acyloxy group, and R_4 and R_5 , or R_5 and R_6 may form a ring, L represents a divalent linking group selected from the group consisting of -CO-, -O-, -NH-, a divalent aliphatic group, a divalent aromatic group, and a combination thereof, Q represents a functional group which interacts with a surface of the support, the coating amount of the undercoat layer after drying being from 1 to 30 mg/m²; and W represents groups as follows:

$$-coo-M_1$$
 $-so_3-M_1$ $-coo-M_1$ $-coo-M_1$

wherein M_1 represents a hydrogen atom, a metal atom, or an ammonium group, R_7 and R_8 each independently represent a hydrogen atom or a straight- or branched-chain alkylene group having 1 to 6 carbon atoms, R_9 represents a straight- or branched-chain alkylene group having 1 to 6 carbon atoms, R_{10} represents a hydrogen atom or an alkyl group having 1 to 12 carbon atoms, and n represents an integer of 1 to 100.

16. (new) The image forming method of claim 1, wherein Q represents a phosphoric ester group, a phosphonic acid group, or an iminodiacetic acid group of the formula

wherein M_1 and M_2 each independently represent a hydrogen atom, a metal atom, or an ammonium group.